American Robins as Reservoir Hosts for Lyme Disease Spirochetes

To the Editor: We read with great interest the article by Richter et al. (1) reporting the competence of American robins as reservoir hosts for Lyme disease spirochetes. The article demonstrates that *Turdus migratorius* is a reservoir for *Borrelia burgdorferi* sensu lato under experimental conditions. However, we want to draw attention to certain statements in the article regarding current knowledge of the ecology of Lyme borreliosis in Europe.

First, in the discussion the statement "The standard of proof (implied xenodiagnosis)... has not previously been applied to candidate avian reservoirs" is inaccurate. In fact, this method was applied a few years ago to pheasants (*Phasianus colchicus*) in the United Kingdom (2) and to European blackbirds (*Turdus merula*) in Switzerland (3) to investigate their respective reservoir competence. Even though these articles were cited by Richter et al., the use of xenodiagnosis detailed in them was not mentioned.

A second statement in the introduction claims that "Although spirochetes have been isolated from naturally infected European blackbirds (*T. merula*) (Humair et al., 1998), a laboratory study failed to demonstrate reservoir competence of these birds (Matuschka and Spielman, 1992); the reason for this discrepancy remains unclear." However, the reservoir competence of European blackbirds has been clearly demonstrated by tick xenodiagnosis (3).

Another statement cited in the introduction that pheasants "...cannot contribute to transmission because larval ticks seem not to feed on them, either in the laboratory or in nature (Kurtenbach et al. 1998a, 1998b)" is incorrect; no such statement occurs in the two papers by Kurtenbach et al. (2,4). Moreover, Randolph and Craine have clearly demonstrated that pheasants contribute to *Borrelia* transmission to ticks (5).

Finally, in the statement "Although certain genospecies of the Lyme disease spirochetes are said to be more mouse-adapted than others (Humair et al. 1995), no experimental evidence is available to support this concept" the term concept is inappropriate. *B. afzelii* and *B. burgdorferi* have been found associated with both Muridae and Sciuridae in various ecologic situations (4,6-10). *B. garinii* and *B. valaisiana* have been observed preferentially associated with certain avian hosts and associated ticks in particular ecologic situations (3,4,11-13). All these published results (3,4,6-13) demonstrate that the relationships between genospecies of *Borrelia* and hosts observed in some areas of Europe have gone beyond concept and are facts. Because the explanation of a phenomenon is not immediately obvious one cannot assert that the phenomenon does not exist or that the evidence can be denied. *Borrelia* sensitivity to serum complement may explain the existence of a preferential relationship between host and *Borrelia* genospecies (14).

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